Docket No.: OT2.P72

VIDEO OBJECT TRACKING
BY ESTIMATING AND SUBTRACTING BACKGROUND

ABSTRACT OF THE DISCLOSURE

5   An object is tracked among a plurality of image frames. In an initial frame an
operator selects an object. The object is distinguished from the remaining background
portion of the image to yield a background and a foreground. A model of the
background is used and updated in subsequent frames. A model of the foreground is
used and updated in the subsequent frames. Pixels in subsequent frames are classified
10   as belonging to the background or the foreground. In subsequent frames, decisions are
made, including: which pixels do not belong to the background; which pixels in the
foreground are to be updated; which pixels in the background were observed incorrectly
in the current frame; and which background pixels are being observed for the first time.
In addition, mask filtering is performed to correct errors, eliminate small islands and
15   maintain spatial and temporal coherency of a foreground mask.